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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,145	11/15/2000	Jong Heon Kim	K-234	8568
34610	7590	04/29/2005	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			LUGO, DAVID B	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/712,145

Applicant(s)

KIM, JONG HEON

Examiner

David B. Lugo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17 is/are rejected.
- 7) ☒ Claim(s) 1-5 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION***Specification***

1. The abstract of the disclosure is objected to because some portions of the amendment to the abstract are unclear. In line 4 of the abstract, the first word is both underlined and struck through, and should be corrected to include only a strike through. In addition, in line 3, “base” should be --based--, the closing parenthesis after “CDMA” has been struck through but should be reinserted, and in line 4, there is no period after the sentence ending with “MUXs”.

Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities:

As indicated in the previous Office action, the description in page 12, lines 3-8 (as amended) do not correspond with equation 4 (page 7), because the recitation of an “AND operated value of an output value of the fourth shift register 14 with an output value of the second shift register 12” is describing the term in parentheses in equation 4 ($r_{n,m} g_{i-1}$), which shows an AND operation between the output value of the nth (or fourth) shift register with the **second value of the generation polynomial**, (i.e. $i-1$), and not the “output value of the **second shift register**” as recited in lines 7-8 of amended page 12.

Thus, in lines 7-8, it appears that “an output value of the second shift register 12” should be “an ($i-1$)th value the second value of the generation polynomial” in order to correspond with equation 4. Appropriate correction is required.

Claim Objections

3. Claims 1-5, 17 and 18 are objected to because of the following informalities:

a. Claim 1, line 14, “shifter registers” should be --shift registers--.

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- b. Claim 1, line 18, "shifter registers" should be --shift registers--.
- c. Claim 3, in the equation in line 11, the range for " i " in the bottom line of the equation should be " $i = 0$ " to correspond with equation 2 on page 6.
- d. Claim 3, in both equations in lines 11 and 15, "interger" should be --integer--.
- e. Claim 3, line 16, "sift registers" should be --shift registers--.
- f. Claim 4, line 3, "as on output rate" should be --as an output rate--.
- g. Claim 17, line 2, "shifter registers" should be --shift registers--.
- h. Claim 17, line 5, "shifter register" should be --shift register--.
- i. In claim 18, definition for the term " g_n " should be provided (see claim 1).
- j. Claim 18, line 5, "shifter registers" should be --shift registers--.
- k. Claim 18, line 6, "shifter registers" should be --shift registers--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by Sriram U.S. Patent 6,636,553.
6. Regarding claim 17, Sriram discloses a method of producing an offset matrix for a linear feedback shift register (LFSR) comprising inputting a present state S_0 of the LFSR to a generator

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circuit (Fig. 3A), and calculating advanced state values based on the present state using multiplication and multiplex circuits (col. 3, lines 1-59), in order to produce an offset state S_N of the PN sequence (col. 3, lines 59-62), where advanced state values of PN sequences are generated in one clock cycle (col. 6, lines 1-3).

Allowable Subject Matter

7. Claims 1-5 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.

8. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and amended to overcome the objections set forth in this Office action.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David B. Lugo whose telephone number is 571-272-3043. The examiner can normally be reached on M-F; 9:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Lugo
4/26/05


KHAI TRAN
PRIMARY EXAMINER 4/24/05